

Application No. 09/853,626

312 Amendment dated December 17, 2003

Reply to Notice of Allowance dated September 26, 2003

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (CURRENTLY AMENDED) Seed of corn inbred line designated KW4636, representative seed of said line having been deposited under ATCC Accession No. _____ PTA-5647.
2. (ORIGINAL) A corn plant, or parts thereof, produced by growing the seed of claim 1.
3. (ORIGINAL) Pollen of the plant of claim 2.
4. (ORIGINAL) An ovule of the plant of claim 2.
5. (ORIGINAL) A corn plant, or parts thereof, having all of the physiological and morphological characteristics of the corn plant of claim 2.
6. (PREVIOUSLY PRESENTED) The corn plant of claim 2, wherein said plant is detasseled.
7. (PREVIOUSLY PRESENTED) A tissue culture of regenerable cells prepared from cells or protoplasts of the corn plant of claim 2.
8. (PREVIOUSLY PRESENTED) The tissue culture according to claim 7, the cells or protoplasts having been isolated from a tissue selected from the group consisting of leaves, pollen, embryo, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.
9. (PREVIOUSLY PRESENTED) A corn plant regenerated from the tissue culture of claim 7, wherein the regenerated plant has all the morphological and physiological characteristics of inbred line KW4636.
10. (CANCELLED)
11. (PREVIOUSLY PRESENTED) A method for producing a hybrid corn seed comprising crossing a first inbred parent corn plant with a second inbred parent corn plant

and harvesting the resultant hybrid corn seed, wherein said first inbred parent corn plant or said second inbred parent corn plant is the corn plant of claim 2.

12 - 37. (CANCELLED)

38. (PREVIOUSLY PRESENTED) A method of producing a male sterile corn plant comprising transforming the corn plant of claim 2 with a transgene that confers male sterility.

39. (PREVIOUSLY PRESENTED) A male sterile corn plant produced by the method of claim 38.

40. (PREVIOUSLY PRESENTED) A method of producing an herbicide resistant corn plant comprising transforming the corn plant of claim 2 with a transgene that confers herbicide resistance.

41. (PREVIOUSLY PRESENTED) A herbicide resistant corn plant produced by the method of claim 40.

42. (PREVIOUSLY PRESENTED) A method of producing an insect resistant corn plant comprising transforming the corn plant of claim 2 with a transgene that confers insect resistance.

43. (PREVIOUSLY PRESENTED) An insect resistant corn plant produced by the method of claim 42.

44. (PREVIOUSLY PRESENTED) A method of producing a disease resistant corn plant comprising transforming the corn plant of claim 2 with a transgene that confers disease resistance.

45. (PREVIOUSLY PRESENTED) A disease resistant corn plant produced by the method of claim 44.

46. (PREVIOUSLY PRESENTED) A method of producing a transgenic corn plant comprising transforming the corn plant of claim 2 with a transgene wherein the transgene confers a characteristic selected from the group consisting of: male sterility, herbicide resistance, insect resistance, resistance to bacterial disease, resistance to fungal disease, and resistance to viral disease.

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47. (CURRENTLY AMENDED) A method of introducing a desired trait into corn inbred line KW4636 comprising:

(a) crossing the KW4636 plants, grown from seed deposited under ATCC Accession No. PTA-_____ 5647, with plants of another corn line that comprise a desired trait to produce F1 progeny plants, wherein the desired trait is selected from male sterility, herbicide resistance, insect resistance, and resistance to bacterial, fungal or viral disease;

(b) selecting F1 progeny plants that have the desired trait to produce selected F1 progeny plants;

(c) crossing the selected progeny plants with the KW4636 plants to produce first backcross progeny plants;

(d) selecting for backcross progeny plants that have the desired trait and physiological and morphological characteristics of corn inbred line KW4636 to produce selected backcross progeny plants; and

(e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants that comprise the desired trait and all of the physiological and morphological characteristics of corn inbred line KW4636 comprising: maturity of 99 days; from emergence to 50% of plants in silk of 71 days and heat units of 1398; from emergence to 50% of plants in pollen of 69 days and heat units of 1359; plant height to tassel tip of 190.1 cm; ear height to base of top ear 65.3 cm; average length of top ear internode of 13.0 cm; average number of ears per stalk of 1.0; dark anthocyanin of brace roots; width of ear node leaf of 8.50 cm; length of ear node leaf of 80.3 cm; number of leaves above top ear of 6.0; leaf angle (from 2nd leaf above ear at anthesis to stalk above leaf) of 20.0; dark green leaf (Munsell Code 5 GY 3/2); leaf sheath pubescence of 4; marginal waves of 4; longitudinal creases of 3; tassel with number of lateral branches of 9.1; branch angle from central spike of 50.5; tassel length (from top leaf collar to tassel top) of 34.0 cm; pollen shed of 8; yellow green anther (Munsell Code 10 Y 8.5/8); maroon glumes (Munsell Code 10 RP 4/6) with bar; ear (unhusked) with yellow green silk (3 days after emergence; Munsell Code 10 Y 8.5/8); light green fresh husk (25

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days after 50% silking; Munsell Code 5 GY 5/8), and light yellow dry husk (65 days after silking; Munsell Code 5 Y 9/4); upright ear position; husk tightness of 4; long husk extension at harvest; ear length (husked) of 15.0 cm; and ear diameter at mid-point of 40.3 mm; ear weight of 131.6 gm; 16 distinct kernel rows; straight row alignment; shank length of 12.9 cm; kernel length of 11.6 mm; kernel width of 6.1 mm; kernel thickness of 3.9 mm; homozygous and colorless aleurone; yellow hard (Munsell Code 2.5 Y 7/8) endosperm; 23.2 gm per 100 kernels; red cob (Munsell Code 7.5 R 3/6); cob diameter (at mid-point) of 23.9 mm; stay green of 7 (65 days after anthesis); 0% of pre-anthesis brittle snapping and root lodging; and yield of 42 bu/acre (at 12-13% grain moisture), to produce selected backcross progeny plants, as determined at the 5% significance level when grown in the same environmental conditions.

48. (PREVIOUSLY PRESENTED) A plant produced by the method of claim 47, wherein the plant has the desired trait and all of the physiological and morphological characteristics of corn inbred line KW4636 comprising: maturity of 99 days; from emergence to 50% of plants in silk of 71 days and heat units of 1398; from emergence to 50% of plants in pollen of 69 days and heat units of 1359; plant height to tassel tip of 190.1 cm; ear height to base of top ear 65.3 cm; average length of top ear internode of 13.0 cm; average number of ears per stalk of 1.0; dark anthocyanin of brace roots; width of ear node leaf of 8.50 cm; length of ear node leaf of 80.3 cm; number of leaves above top ear of 6.0; leaf angle (from 2nd leaf above ear at anthesis to stalk above leaf) of 20.0; dark green leaf (Munsell Code 5 GY 3/2); leaf sheath pubescence of 4; marginal waves of 4; longitudinal creases of 3; tassel with number of lateral branches of 9.1; branch angle from central spike of 50.5; tassel length (from top leaf collar to tassel top) of 34.0 cm; pollen shed of 8; yellow green anther (Munsell Code 10 Y 8.5/8); maroon glumes (Munsell Code 10 RP 4/6) with bar; ear (unhusked) with yellow green silk (3 days after emergence; Munsell Code 10 Y 8.5/8); light green fresh husk (25 days after 50% silking; Munsell Code 5 GY 5/8), and light yellow dry husk (65 days after silking; Munsell Code 5 Y 9/4); upright ear position; husk tightness of 4; long husk extension at harvest; ear length (husked) of 15.0 cm; and ear

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diameter at mid-point of 40.3 mm; ear weight of 131.6 gm; 16 distinct kernel rows; straight row alignment; shank length of 12.9 cm; kernel length of 11.6 mm; kernel width of 6.1 mm; kernel thickness of 3.9 mm; homozygous and colorless aleurone; yellow hard (Munsell Code 2.5 Y 7/8) endosperm; 23.2 gm per 100 kernels; red cob (Munsell Code 7.5 R 3/6); cob diameter (at mid-point) of 23.9 mm; stay green of 7 (65 days after anthesis); 0% of pre-anthesis brittle snapping and root lodging; and yield of 42 bu/acre (at 12-13% grain moisture), to produce selected backcross progeny plants, as determined at the 5% significance level when grown in the same environmental conditions.